

**U.S. Environmental Protection Agency Institutional Controls Tracking System
Non-Governmental Organization Focus Group Notes**

October 22, 2002
Washington, D.C.
EPA West

Purpose

The purpose of this focus group was to gather the expertise of policy analyst on the subject of electronic tracking systems for institutional controls (ICs). The focus group also provided a forum for policy analyst participants to share their opinions on the challenges of IC tracking.

The participants in this focus group are listed below:

Bob Cribbin, U.S. Army Corps of Engineers (USACE)
Amy Edwards, Holland and Knight, LLP
Lisa Jenkins, U.S. Environmental Protection Agency (EPA)
Tom Kelly, EPA
Jay Pendergrass, Environmental Law Institute (ELI)
Katherine (Kate) Probst, Resources for the Future (RFF)
Larry Zaragoza, EPA
Lori Maher, DPRA
Matthew Hayduk, DynCorp
Jenifer Grabski, DynCorp

Presentations

Institutional Controls Briefing, presented by Bob Cribbin, USACE

ICs are legal or administrative limits on land use, not physical barriers impeding use. ICs are used in most remedies and are relied upon for the long-term protection of people. EPA relies on others to implement, monitor, and enforce ICs. EPA desires a strengthening of safeguards for this reliance upon third parties. One way EPA can accomplish this is through a tracking system.

The present tracking of ICs is limited; in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) they are listed as “not otherwise specified.” This is not an explicit description, making it difficult to ascertain their status. Officials have no way of knowing if the ICs are deed notices, covenants, or easements. Databases that currently track ICs information are: CERCLIS, CCTS, FYRTS, RCRAInfo, and SPIS, to name a few. If one were to combine the information contained within them, officials still could not identify who was implementing, enforcing, and monitoring the ICs.

Therefore, EPA is creating a separate system that specifically tracks only the information necessary to ensure ICs are protective. This system will manage the entire life cycle of the IC, from selection to termination. EPA envisions diverse stakeholders supporting this new database.

Mr. Cribbin presented EPA's progress in laying the groundwork for this new IC database. He summarized what EPA has learned about IC tracking in various jurisdictions across America, what EPA has learned from previous focus groups, and what EPA plans in terms of upcoming IC- tracking-related meetings.

EPA/OERR requested information to review EPA regional tracking systems. Thus far, OERR conducted interviews with EPA staff from all regions. Regions 1, 4, 6, 7, 8, and 10 track ICs through CERCLIS, and have no further information beyond that which is contained in decision documents (*e.g.*, Records of Decisions or "RODs"). Regions 2, 3, and 9 track ICs on a spreadsheet. Region 5 has a post-construction completion database that does not currently track ICs, but they are in the process of adding this information. Regions, generally, do not track ICs at the level of detail that EPA currently envisions for the new database because such data requires a high level of centralized coordination.

Regarding state IC tracking, EPA has consulted with experts at ELI and EPA has conducted some additional research of its own. EPA now knows that twenty-four states track ICs in a system. Information was gathered from nine of the 24 states that track ICs. EPA determined what data categories that states with tracking systems track, the capabilities of these systems, and the cost of running these systems. EPA asked if they would be willing to share their tracking systems with states that do not have their own. EPA made an official Office of Management and Budget information collection request to find out more about existing state and local tracking systems. In July 2002, EPA distributed a detailed survey to 200 agencies in all 50 states inquiring about their IC tracking systems and associated costs. Thus far, there has been a 15% response rate. EPA has learned, for instance, that New Jersey has spent \$17 million dollars to build a system that tracks ICs, and they are willing to share their system (except for copyright-protected software) with other states. More results are expected to be compiled and reported later this year.

Of the federal agencies, the Navy uses the Land Use Control Information System (LUCIS), which is a GIS-based database with PDF links, to track ICs. Both the Army and the Navy have site-based systems that are used for sites being transferred out of federal control. These systems are snap-shots in time. The Department of Energy has completed some long-term stewardship studies on LUCs, but does not track them at this time. OERR made an information request to review other agencies' tracking systems.

From this research, EPA has compiled a universe of all possible data categories that could be populated by the IC tracking system that EPA is developing. This exhaustive list, referred to as the "laundry list," is contained in the left hand margin of the matrix handout distributed to the participants at the beginning of this focus group. EPA will use a reasonable subset of this laundry list to track only the most important data categories in the tracking system that it is developing. Determining what that subset of priority data categories is one of the purposes of this focus group; this will be explained later by the focus group facilitator. Before turning the focus group over to the facilitator, Mr. Cribbin said that he wanted to inform the participants about some additional details regarding EPA's many IC projects. For instance,

he added that EPA funded a regional IC pilot in which EPA research consultants went to 72 sites in Regions 3 and 5 to find key data points about ICs. The researchers identified where various aspects of IC-related information was available, the status of the information, and the cost to collect more comprehensive information.

Field researchers discovered that important IC information was often not where sources indicated that this information would be. Regional files were incomplete, and often supported IC selection and decision making, but not IC implementation information. Remedial Project Managers (RPMs) did not have post-IC-selection information on ICs because RPMs are not responsible for IC implementation and IC enforcement. Potentially Responsible Parties (PRPs) demonstrated that they submitted IC information, but did not know where the information was kept after it was submitted. Information from local property record keeping agencies was difficult to access because each local government files the information under different identifiers (*e.g.*, taxpayer ID, parcel number, or physical address), and in various forms (*e.g.*, catalogs, microfiches, and hard copies in boxes).

Little information exists on ICs post-selection, which means that there is a disconnect between what was called for to maintain protectiveness in the decision document, and what was actually placed on property to maintain the protectiveness of the remedy. Furthermore, EPA has found that – aside from the five year reviews mandated by CERCLA – IC monitoring is often not being conducted on a regular basis. Although PRPs are reporting the installation of the ICs on the property, the state and local agencies responsible for monitoring and enforcement of the ICs do not have the necessary resources for these responsibilities. Therefore, the ICs are not always monitored or enforced.

To summarize, Mr. Cribbin stated that EPA has determined that there needs to be a link between all players in the life-cycle of an IC, including EPA, other federal agencies, states, local governments, and the public. The development of a national IC tracking system network that streamlines the entry and management of IC data – and that eases the release of that data to the public – will facilitate continued protectiveness at sites nationwide.

Discussion

The focus group facilitator, Ms. Lori Maher, explained the group's next topic – the discussion of essential IC data categories that EPA should track. She said that the goal of the discussion was to eliminate excess data categories from the matrix of IC tracking systems that was handed out to participants at the beginning of the focus group. This matrix, the Data Category Comparison Matrix (the matrix), is a compilation of all data inputs categorized from nine independent IC tracking systems. These tracking systems were voluntarily submitted to EPA's consultants from several state and local governments, as well as from several federal agencies. EPA analyzed the data categories tracked by all these systems and distilled a comprehensive comparison of its analysis on the matrix. Ms. Maher explained that after discussing each possible data category that EPA could track, she wanted the group to assign an overall grade to that data category. She outlined a grade scale to facilitate importance to each data category. They are as follows:

| Grade | Definition |
|-------|---|
| A | Data categories that participants assigned the highest priority for tracking |
| B | Data categories where a middle level of tracking priority was assigned, or alternatively, an average computed due to an equal number of “A” and “C” votes |
| C | Data categories that participants assigned the lowest priority for tracking |
| D | Data categories that caused strong disagreement among participants |

In addition, Ms. Maher presented a key to the color-coding of data categories in this particular matrix. They are as follows:

| Color | Definition |
|--------------|--|
| Green | A match between a possible EPA data category and a data category that a federal, state, or local system is already tracking |
| Light Orange | No match between a possible EPA data category and any data category tracked by a federal, state, or local system; these light orange data categories are also marked “not available” – meaning that the system analyzed does not provide this data |
| Dark Orange | A data category tracked by federal, state, and local systems, but not listed in EPA’s possible data categories |
| Teal | A data category tracked by federal, state, and local systems, but not listed in EPA’s possible data categories because the category is tracked by EPA in another system (<i>e.g.</i> , CERCLIS 3) |

Ms. Maher also explained the division of the matrix into six independent sections that address different aspects of ICs that EPA may need to track. They are as follows:

- Appendix 1: Site Information Data Categories
- Appendix 2: IC Selection Data Categories
- Appendix 3: IC Implementation Data Categories
- Appendix 4: Site IC Monitoring/Enforcement Data Categories
- Appendix 5: IC Costs Data Categories
- Appendix 6: GIS Data Categories

Ms. Maher said that she wanted to know what the participants thought of the information in these appendices. For instance, she suggested that the participants ask questions about what different data categories mean, whether those categories are important to track, and how

important they are to track (*i.e.*, are they grade “A”, “B”, or “C”). Ms. Maher suggested that each person take a moment and grade each Appendix independently before a forum opens to discuss each point.

Before discussion pertaining information in the appendices began, participants brought up issues that they felt superceded this database. A participant pointed out that information pulled from CERCLIS is not always valid, and therefore information should be collected independent of CERCLIS and checked for quality by the regions, headquarters, and finally the public.

Appendix 1: Site Information Data Categories

Site ID

The group agreed that “Site ID” is an A.

Program Information

The group agreed that “Program Information” is an A.

Site Name, Site Addresses, and Locality

The group agreed that “Site Name, Site Addresses, and Locality” are an A.

EPA Region

The group agreed that “EPA Region” is an A.

Tribal Land

The group felt that this information would be common local knowledge to the public surrounding the area, but sees the validity of recording this information. It would help state and federal government. The group agreed that “Tribal Land” is an A.

Site within Fifty Miles of Tribal Land

The group could not see the usefulness of this information. The group agreed that “Site within 50 Miles of Tribal Land” is a C.

Federal Facility

The group agreed that “Federal Facilities” is an A.

Congressional District(s)

The group agreed that “Congressional District(s)” is an A.

Site Background

The group agreed that “Site Background” is an A.

Parcel Number

The group believed that parcel numbers are more like a place-holder, but not necessarily vital information. The group agreed that it is a B.

Section, Township, and Range

The group believed that this information is important since there are many municipalities that still use this information to characterize parcels. They agreed that it is an A.

Site Reference Point

The group agreed that “Site Reference Point” is an A.

Site Reference Point Metadata

The group did not understand the purpose of this data. EPA/OERR explained to the group that, as data definitions, this would not necessarily be a data field, but would link to definitions of fields. The group believed that the public would not understand what metadata is, but recognized that metadata is important. The group agreed: “Site Reference Point Metadata” is an A or a B.

Site Boundaries

Since boundaries may change over time, this information is needed. It is crucial to include legal descriptions in terms that will meet legal requirements, and the needs of the average public user alike. The information should also take the complexities of all cleanup programs and tracking systems into account. The group agreed that “Site Boundaries” is an A.

Operable Units

The group believed that this information should include not only the number of OUs but the names and descriptions of the OUs. This information should also be linked to the site media. CERCLIS does not provide OU definition, making it difficult to ascertain which OU is tied to what media. In addition, the information on OUs is not updated in CERCLIS on a consistent basis. If OUs change, this information must be included in the database. This information is particular to Superfund sites, so it is not a core data category. They agreed that “Operable Units” is a B.

Hazardous Substances

The group believed that this information is important only if it can be tied to the risk and the media of concern. This should be rolled into Media Impacted, and include information that is not from CERCLIS. The hazardous substances should be identified and include only those that are left on site, not contaminants that are removed or remediated. The group agreed that “Hazardous Substances” is a B.

Media Impacted

To reiterate the above discussion, the group believed that this category should be augmented to include information about the hazardous substances left on site, the media impacted, and the status of remediation. This information should be collected independently of CERCLIS and updated frequently. The group agreed that “Media Impacted” is an A.

Engineered Controls/Remedy

The group believed that this information should be collected for sites that had ICs, and that the

system should account for differences in language between the different EPA programs. The group agreed that “Engineered Controls/Remedy” is an A.

Cleanup Authority

The group agreed that “Cleanup Authority” is a B.

Site Lead

The group believed that the lead PRP should be included in this category. They were not sure how accurately this information could be tracked. The group agreed that “Site Lead” is a C.

Site Status

The group believed that this data category would be very difficult to track. EPA needs to make a determination whether they will track the most advanced OU, as in CERCLIS, or if they will track all OUs. EPA’s current tracking of the most advanced OU is sometimes misleading. If done carefully, this could be a field that is pre-populated by CERCLIS. Deleted sites should not be contained in the system. The group agreed that “Site Status” is an A.

Site Contact

Including the RPM and other key contacts can be helpful, but may confuse the public. The public’s primary concern is linking to a person who can help when the IC is breached. The group agreed that “Site Contact” is an B.

Residual Contamination Left on Site

The group agreed that another key piece of information that the public needs to have at their disposal, and in a conspicuous location, is the contamination is left on site. This information should be displayed with monitoring findings, monitoring contacts, objectives of the remedy, media of concern, and the restrictions on the site. These are all vital categories in the opinion of the group, and all are graded A+.

Appendix 2: IC Selection Data Categories

IC ID

The group questioned how these IDs would be generated. They were told that the ICs would be generated by the system and tied to a specific IC for each site. The group also wanted to know if the ICs were would be tied to CERCLIS in some shape, like using the last four CERCLIS ID Numbers within the IC ID. They also questioned the usefulness of tying an IC to a site, versus to an OU. For example, a problem arises when ground water, which may extend past a property but be contained within an OU, is tagged. However, they recognized the necessity for this data category, and agreed that “IC ID” is an A.

IC Description/Source Document

The group believed that an IC description is redundant; it should be named in the IC ID. They would much rather have the title of the administrative document describing the IC included as opposed to the name or kind of IC instrument. Including the title of the IC document will make

it easier to define and locate than what type of IC it is because states do not consistently use the same IC names. A reference should exist to the source decision document that called for the IC, whether incorporated into this data category or independently of it. These acknowledgments of the source of the legal authority for the IC will capture data not found in site information repositories, which only include information supporting the decision document. So, there should be a reference to the source document and a reference to the legal basis that relates to the enforcement of the document. The group agreed that these two data elements are an A.

IC Category

The group believed that this information would be best captured at the most specific level of information. Including major groups that are repetitive is a waste of resources. The group disagreed on other points related to this category, and “IC Category” is graded as a D.

IC Sub-Category

This level of detail is the most appropriate level of information to include in the database that allows for efficient use of resources. The group agreed that “IC Sub-Category” is an A.

Media of Concern

The group agreed that this is an essential category; however, it needs to be more inclusive. For example, how does one quantify the existence and remediation of contaminated buildings? If “media of concern” is expanded to include broader data elements, the group would give it an A.

IC Objective(s)/Remedy Protected by IC

The group decided that these two data categories could be rolled into one data field. The objective of a remedy is to ensure the continued protectiveness of a site, and an IC is an administrative function of the continued protection. The only real concern of the group is whether or not this will be updated to reflect changes in site remediation or if the data in these categories will be a snapshot in time. The group believes that this information should be updated continually to ensure high confidence levels in the data. If these data elements were rolled into one data field, the group would give the category an A.

Activity or Use Limitation of IC

The group believed that the most important part to emphasize in this field are *restrictions* on site use because restrictions are much easier to define than future land uses. This will be revisited later. The group gave it an A.

Hazardous Substances Associated with the IC

The group stated that this information is better suited for objectives. It is very important to collect this information, but this can be streamlined under the objectives category to make the information and database user-friendly. The group gave it a B.

IC Area, IC Boundary, and Parcel Number

Since all this information relates to the physical location of an IC, the group believed that this category could be rolled into one data field. If “IC Area,” “IC Boundary,” and “Parcel Number”

are rolled into one category, the new category would be an A.

Conveyance of Property Rights/State Assurances to CERCLA/Third Party Enforcement Rights

These data fields would be important only if the information linked the user to the agency to which one should report IC breaches. The public's primary use of the database is going to include who to contact concerning exposure as a result of breaches, and these data categories do not supply that information. There was some disagreement within the group and therefore, it these data categories received a D.

Risk Factors

This information is important because if the IC is breached, the public would want to know exactly what they may have been exposed to and the seriousness of that exposure. However, this information should be built into the objectives/remedy protected by the IC. In addition, this information may be difficult to quantify. The group gave it a C.

Anticipated Future Land Use

This category could be expanded to include allowable uses and anticipated uses, but this category would have many problems: it would have to be updated to anticipate future land use changes because of technology changes or changes in remediation. In addition, future land use after EPA has relinquished control over the site will be less certain because the experts are no longer there to advise the development of the site. The most efficient way to anticipate future land use is to list all the restrictions on the site. This would conserve resources by telling users what they could not do – restrictions that should not change. The group gave it a C.

Contacts

The group agreed that attached decision documents (if they are included in the database) should contain the RPM/Agency information. Adding this information may drain resources needlessly. The group agreed that it is a D.

Appendix 3: IC Implementation

Source Document

The group believed that "Source Document," or whether or not the IC is called for in a decision document, is a high priority for them to track, but should be highly visible and coupled with the IC description, as previously discussed. The group agreed that "Source Document" is an A.

Implementation Status

There was discussion as to what level of detail to include. Some believed that the only information necessary was that the IC had been implemented, while others wanted to know when it was implemented because it holds the agency accountable for enforcement and monitoring. It was suggested that this data could be collapsed into the source document information. The group agreed that "Implementation Status," or details including whether or not the IC has been implemented and the date it was implemented, is an A.

Duration

The group agreed that “Duration,” or the life-span of the IC, is an A because it mandates enforcement over a specified time period and places an agency in stewardship of the IC.

Implementation Party

The group believed that the most important piece of information in this data category is what party is responsible for the design of the IC. However, the party that the IC is implemented to restrict is not important. The group wants the party that will be restricted by the IC excluded from the definition. The group agreed that Implementation Party, or the party responsible for implementing the IC alone would be an A

Implementation Issues

This would include the lessons learned during the implementation process, and is a valuable resource. However, the group believed that this was an inappropriate forum to track this information. It would be better suited to separate studies and research. The group agreed that “Implementation Issues” is a C.

Termination Status

This data category should include both temporary and permanent ICs. The group agreed that it is an A.

Termination Initiation Party

The group believed that this information was not relevant to any user of the system, so it should not be included. They agreed that it is a C.

Termination Approval Party

The group agreed that “Termination Initiation/Approval Party” is useful, but not necessary. They agreed that it is a B.

Modification Information

“Modification Information” should reflect only the most recent modifications. Any previous copies should be represented by some type of notification that the IC has been modified. Previous ICs are not relevant. However, participants pointed out that the information repositories for sites contain no information beyond the decision documents, and EPA may want to retain previous versions for their own needs. The group agreed that “Modification Information” is an A.

IC Implementation Documents

The group believed that this information was not vital, but would be nice to have. The documents retained should be vital documents. Participants have already experienced frustration with the proliferation of links to useless documentation on site history, and more of the same would only confuse users. They believed that the most relevant documents would be the implementation documents; these would be the documents to include. However, the group cautioned that EPA would be wise to perform QA/QC on the documents included. The group

agreed that “IC Implementation Documents” is a B+.

Contacts

Contacts should be an agency or centralized office that deals primarily with IC issues. This clearinghouse would be able to link you to a site expert as needed. The group agreed that Contacts is an A.

Appendix 4: IC Monitoring and Enforcement Data Categories

IC Monitoring Requirements

The group agreed that monitoring is a key issue. Many states have monitoring requirements that affect sites. The group was not sure how requirements is different from monitoring frequency and date, so it was clarified that this data category relates to the authority. If there are no monitoring requirements, then that should be noted as well. The group agreed that it is an A.

Monitoring Parties

The group agreed that “Monitoring Parties” is an A.

Monitoring Frequency and Dates

The group agreed that “Monitoring Frequency and Dates” is an A.

Monitoring Findings and CERCLA Five Year Review

The group wanted clarification on the definition of findings. They were not sure if this would be findings in the Five Year Review (FYR) Reports, because the language included in the definition of the field (ICs remain in place, etc.) are particular to the FYR Program. The group believed that there could be a checklist of items or a template, including an “other” data category, that would capture the information. They also believed that there should be a field that would detail the source of the findings (the document) and the signature date of that document. This field should also have a historical reference with the results of all the monitoring findings over the life-span of the site. In addition, this data category should also have a direct link to the objectives data category so the user may compare and contrast the two. Finally, the group believed that since most states monitor the sites more frequently than every five years, these findings should be included. The group agreed that “Monitoring Findings and CERCLA Five Year Review” would be an A if rolled together and if remedy review requirements are included in the information.

Notification Provisions for IC Breaches

The group believed that this information is redundant. If information is supplied to the public that directs them to an agency to contact in the case of an IC Breach, then the public has been served. This is too much information to keep current and would be a waste of resources. If this information is included in the database, it would be most appropriately rolled into the monitoring findings. If it is rolled into the “Monitoring Findings” category, then it is an A; if not, then it is not applicable.

IC Breach Incident Report

The group believed that this is additional information that can potentially be difficult to access. This information should also be covered under the monitoring findings data category. If it is rolled into “Monitoring Findings,” then it is an A. If not, then it is not applicable.

Land Use Changes & Exposure Scenario Changes

The group questioned how this data category related to the modifications section. They believed that this information would be best represented in the Activity of Use Limitation of the IC. The restrictions need to be updated continually. The group agreed it is a B.

Enforcing Party/Enforcement Authority

The group agreed that these two categories are an A.

IC Related Enforcement Action, IC Related Enforcement Action Resolution

The group agreed that these two categories are a B.

IC Damages/Penalties

The group agreed that this information could be rolled into “Monitoring Findings/IC Breach” information to decrease redundancy, but that it is not essential. The group agreed that it is a B.

Monitoring/Enforcement Documents

The group agreed that “Monitoring/Enforcement Documents” is not essential, but would be nice to know. They agreed that it is a B.

Contacts

The group believed that this was the most important contact to include in this database. This is essentially the person or agency to call if an IC is breached – the primary concern of an interested public. The most important point is that the information regarding the contact should be clear, concise, and easy to find. The group agreed that “Contacts” is an A+.”

Appendix 5: IC Cost Data Categories

IC Design Costs, IC Implementation Costs, IC Monitoring Costs, IC Enforcement Costs, Total IC Costs, Remedial Cost Savings, and Contacts

The group believed that this information is extremely important because it will help the agency with cost savings; however, this information is not appropriate for a database. Self-reported costs will not work. Information entered cannot be validated for accuracy unless significant guidance is created to help track costs. Entering bad cost data will make finding accurate data and research useless. The group believed that EPA had poor cost information. Therefore, an independent study done by a third party should be conducted to include costs like operations and maintenance and long-term remedial actions. The creation of the IC tracking system may assist the agency in formatting a project to track costs, because at this point the data to run such a study does not exist. Responsible Parties will not volunteer the information and state and local governments will have no way of tracking costs consistently. The group agreed that all of the data categories are not applicable or a C.

Appendix 6: Geographical Information Data Categories

Municipal Boundaries, Transportation/Roads, Hydrography, Hypsography, Land Use/Land Cover, Geographic Names, Aerial Imagery, and Federal and Indian Lands

The group pointed out that most of the information that is called for in this appendix is already tracked in some form by EPA. If EPA does not have this information, local governments or organizations like the American Society for Testing and Materials should have this information. This information would be useful, but the group suggested that EPA use information already available to them to save costs. This information is useful to the public because the data elements will make explicit the public's proximity to the site. The most important point they made is that the system should be flexible to anticipate future uses of GIS, like census results and population densities. The group agreed that "Municipal Boundaries," "Transportation/Roads," and "Land Use/Land Cover" are an A, and the remaining categories are a B.

Debriefing

Participants were concerned about the presentation of the data in the database. They believed that the data should be streamlined so that the general public, prospective purchasers, and lenders can access the key information identified with the least amount of effort. The public will need to access to the current status of the site and will need some limited information about the history of the site. There should also be a chain of contacts that are responsible for monitoring and enforcement actions. If one cannot be contacted, then someone else can be notified.

Another concern is using the least amount of resources to attract and retain an audience. They hoped that the "lowest common denominator" would be used. EPA should not add data just because it is available to them; they should pay attention to and pick out the "good information" directly from site documents to maintain validity in the system. Said one participant, "If you put garbage in, you will get garbage out." The system, at a minimum, should show that ICs are

selected, in place, and working. The system should be user-friendly and cost-efficient.

EPA/OERR invited all the participants to an IC Workshop, to be held October 28-30, 2002 in the Hilton Washington Embassy Hotel. The purpose of this workshop will be to move closer to the actual creation of an IC tracking system. Each focus group will summarize its discussion in a presentation to be made by a representative of each focus group. There will then be breakout sessions in which one member from each group will form a new group to discuss the results, as well as the perceived format of the IC tracking system (including data input, system structure, and data export). The groups will brainstorm on ways to manage these factors and then create an action plan to create and manage the IC tracking system. Systems that are already in existence can be evaluated for lessons learned and cost of implementation. EPA/OERR hopes that some of these systems will be shared between participants.

In adjourning the group, EPA/OERR reminded participants that its motivations for developing this IC tracking system are to meet internal needs (to ensure the protectiveness of site remedies) and to meet the needs of the diverse set of tracking system users that EPA envisions. To create this system, an explicitly defined need must be articulated for the system. This will involve dialogue with EPA's peers. In addition, EPA will need some help from stakeholders in bearing the cost of running this system, so it is critical to have representatives available at the upcoming workshop to define their needs and to foster enthusiasm for the project.